

KANSAS ANIMAL SCIENCE SKILLS & COMPETENCIES CERTIFICATE

The Kansas Animal Science Skills & Competencies Certificate will document skills and competencies gained by student participation in agriculture education through the Animal Science Pathway. The program is an opportunity to quantify and qualify skills learned through completion of all three segments of the agriculture education model with a focus on animal science.

The United States Department of Agriculture reported 15 percent of jobs are expected to be in agriculture and forestry production between 2010 and 2015. Agriculture is the nation's largest employer, garnering 20 percent of our nation's employment and 20 percent of our nation's gross national product. However, each year 10 percent of today's professional jobs in agriculture go unfilled because of a lack of qualified graduates.

The Kansas Department of Agriculture (KDA) is pleased to sponsor this certificate program for Kansas FFA members. The certificate is listed as a qualifying certificate for Governor Brownback's Career Technical Education (CTE) Initiative.

In order to be eligible for the Kansas Animal Science Skills & Competencies Certificate, the following requirements must be met. **Please refer to the Animal Science Qualifying Competencies and Examples of Pathway Skills support documents for eligible competencies and examples of Animal Science Pathways skills.**

- Must have completed three high school agriculture education courses, two of which must be from the following list:
 - 18101 – Animal Science
 - 18103 – Advanced Animal Science
 - 18102 – Small Animal Care
 - 18104 – Equine Science
 - 18105 – Animal Health/ Vet Tech
- Must have been an FFA member for at least twenty-four months at time of application
- Complete either of the following Supervised Agricultural Experience (SAE) documentation:
 - Submitted district level Animal Science Pathway specific proficiency award application
 - Earned State FFA Degree supported by an Animal Science Pathway specific SAE
- Cumulative GPA of 2.5 or higher in all classes, not just agriculture education courses
- Participate in one FFA leadership event or Career Development Event (CDE) and one technical FFA Animal Science Pathway specific CDE, above the chapter level, listed on the Animal Science Qualifying Competencies support document.
- Satisfactorily complete the cPass Animal Science Assessment. Level to be considered satisfactory will be determined by the KSDE Education Program Consultant, in consultation with KDA
- As part of the application, students will also be asked to complete a brief essay describing at least five, but up to 10, Animal Science Pathway specific skills they have gained through their participation in above activities as reviewed by their advisor.

I hereby confirm that I have honestly and accurately met the certificate requirements listed above and are reflected in this application for the Kansas Animal Science Skills & Competencies Certificate.

Name (Printed)

Name (Signature)

Date

Home Address: _____

The Kansas Department of Agriculture is the state agency devoted to the total support of agriculture. The department works for the entire Kansas agriculture sector, including farmers, ranchers, food establishments and agribusinesses. The department is dedicated to providing support and assistance to make Kansas businesses successful and encouraging more farms, ranches and other agriculture business to expand in or relocate to Kansas.

Within this role, the Kansas Department of Agriculture also fulfills its statutory responsibility of regulating business functions in accordance with state law. The department works to ensure businesses know what laws affect them and how they can ensure they are in compliance with those laws. In this process, the department aims to minimize excessive rules and regulation.

APPLICATION CHECKLIST

Official transcript

One of the following two must be completed and attached to application:

District proficiency application signature page, signed by the chapter advisor.

OR

State FFA Degree application signature page, signed by chapter advisor.

All sections of the application must be completed

Agriculture education Courses

FFA membership

SAE documentation

GPA verification

FFA leadership event/CDE and technical FFA animal science pathway specific CDE participation
above the chapter level

cPass Animal Science Assessment passage and verification

Skills identified in a brief essay referencing Animal Science Pathway specific skills

Signatures *{both cover page and signatures documentation page}*

SUBMITTING THE APPLICATION

The Kansas Department of Agriculture will receive applications anytime during the academic year. All applications should be submitted upon completion, but **must be postmarked by May 1**. For an electronic application, please visit agriculture.ks.gov/ageducation – under the Kansas Agriculture Skills & Competencies Certificates list.

Applications may **only** be mailed to the following address:

Kansas Department of Agriculture
c/o Education & Event Coordinator
1320 Research Park Drive
Manhattan, KS 66502

In order for an application to be considered eligible, all sections of the application form must be completed.

No handwritten applications will be accepted.

KANSAS ANIMAL SCIENCE SKILLS & COMPETENCIES CERTIFICATE

Please complete the following sections in full prior to submitting your application. Please contact the Kansas Department of Agriculture Education & Events Coordinator at robin.blume@kda.ks.gov or at (785) 564-6756 with any questions.

AGRICULTURE EDUCATION COURSES

Please list the agriculture education courses you have completed. In order to receive the certificate, you must have completed at least three courses, two of which must be from the following list:

18101 – Animal Science, 18103 – Advanced Animal Science, 18102 – Small Animal Care,
18104 – Equine Science, 18105 – Animal Health/ Vet Tech

Please list any agriculture education courses you are currently enrolled in and anticipate completing prior to graduation.

FFA MEMBERSHIP

Please list the academic years in which you were an active FFA member. A minimum of twenty-four months of active membership is required.

Year One:

Year Two:

Year Three:

Year Four:

SUPERVISED AGRICULTURAL EXPERIENCE (SAE) DOCUMENTATION

In order to receive the certificate, your SAE must meet one of the following requirements:

- 1) Submitted district Animal Science Pathway specific proficiency award application
- 2) Earned State FFA Degree supported by an Animal Science Pathway specific SAE

District Proficiency Option

Attach to this application packet a copy of the District Proficiency Award cover page, signed by your FFA advisor. The submission of this application to the district level will be verified by KDA on behalf of the Kansas FFA Executive Secretary who will obtain a list of students who have submitted a District Proficiency Award application following district selections each spring. To fulfill this requirement, the proficiency must be listed under *Proficiency Areas* on the Animal Science Pathway Qualifying Competencies support document.

State Degree Option

Attach to this application packet a copy of the State FFA Degree cover page, signed by your FFA Advisor. The earning of your State FFA Degree will be verified by KDA on behalf of the Kansas FFA Executive Secretary who will submit a list of students who have earned their state degree following State Convention each spring. To fulfill this requirement, the SAE must be listed under *Proficiency Areas* on the Animal Science Pathway Qualifying Competencies support document.

Please indicate which requirement you have completed:

- Submitted district proficiency award application
- Earned State FFA Degree

In the space below, give a brief overview of your Animal Science Pathway specific Supervised Agricultural Experience:

GPA DOCUMENTATION

In addition to noting your overall high school GPA in the space below, attach a copy of your transcript to this application packet. A cumulative GPA of 2.5 or higher, in all courses, is required to obtain the certificate.

GPA {all classes, not just agriculture education courses}:

Weighed GPA {if applicable}:

CAREER DEVELOPMENT EVENT (CDE) DOCUMENTATION

Please show documentation of one FFA leadership event/CDE and one technical FFA Animal Science Pathway specific CDE above the chapter level and organized by FFA, in which you participated. The same CDE cannot be used for both requirements. Listing of acceptable CDEs and events is located on the Animal Science Qualifying Competencies support document.

FFA Leadership Event/CDE above the Chapter Level

Event/

CDE:

Date:

Location:

FFA Technical Animal Science Pathway Specific CDE above the Chapter Level

CDE:

Date:

Location:

CPASS ANIMAL SCIENCE ASSESSMENT

The Kansas State Department of Education (KSDE) program consultant, in consultation with KDA, will verify that the cPass Animal Science Assessment has been completed satisfactorily. No further documentation is necessary.

SKILLS & COMPETENCIES GAINED

In a brief essay, describe 5-10 major skills, competencies and knowledge (e.g. marketing, safety, personal skills development) that best describe what you gained technically and personally from your agriculture education curriculum. Skills should be selected from the competency profiles for courses specific to the Animal Science Pathway. Please refer to the Animal Science Examples of Pathway Skills support document for examples of pathway skills.

SIGNATURE DOCUMENTATION

Agriculture Education Instructor and FFA Advisor

As the agriculture education instructor and FFA advisor to this Kansas Animal Science Skills & Competencies certificate applicant, I hereby verify that this student has completed a minimum of three courses of agriculture education work, been an active FFA member for a minimum of two years, participated in the FFA events/CDE's documented above and taken the cPass Animal Science Assessment test.

Name (Printed)

Name (Signature)

Date

School Administrator

As the school administrator to this Kansas Animal Science Skills & Competencies certificate applicant, I hereby verify that all information provided in this certificate application is accurate.

Name (Printed)

Name (Signature)

Date

Kansas Animal Science Skills & Competencies Certificate – Support Document

Examples of Pathway Skills

This list is not exhaustive

Below are **examples** of the **application-level skills** applicants describe when completing the Skills & Competencies Gained portion of the certificate application.

Animal Science Pathway

- Outline the development of the animal industry and the resulting products, services and careers
- Explain the impact of animal body systems on performance, health, growth and reproduction
- Evaluate and select animals to maximize performance based on anatomical and physiological characteristics that affect health, growth and reproduction
- Diagnose illnesses and disorders of animals based on symptoms and problems caused by diseases, parasites and physiological disorders
- Formulate animal feeds based on nutritional requirements, using feed ingredients for maximum nutrition and optimal economic production
- Compare and contrast quantitative breeding value differences between genetically superior animals and animals of average genetic value
- Design programs that assure the welfare of animals and prevent abuse or mistreatment
- Explain why animal trace-back capability, using individual animal and farm identification systems, is important to producers and consumers
- List guidelines for safety when handling dangerous chemicals and when working with small animals
- Examine the housing and equipment requirements in order to properly own and care for miniature livestock
- Explain the principle of immunization in horses
- Detail accurate records for equine operation
- Understand equine behaviors
- Outline the process used in artificial insemination
- Diagram how muscles are attached to the skeleton
- Explain mechanical and chemical digestive process of ruminant and monogastrics; including horses and chickens
- Illustrate the structure of the mammary system
- Demonstrate proper methods of animal restraint, determining animal temperature, giving injections and/or obtaining fecal samples

A complete list of Animal Science Pathway Knowledge and Skills can be found at ksde.org/default.aspx?tabid=449 under the title “2015-2016 Animal Science Pathway Design Sheet with Competencies”.

Please refer to these lists when completing the Skills & Competencies Gained portion of the certificate application.

Kansas Animal Science Skills & Competencies Certificate – Support Document

Qualifying Competencies

Proficiency Areas

Ag. Processing*
Ag. Sales- Entrepreneurship*
Ag. Sales- Placement*
Ag. Services*
Ag. Research- Animals Systems
Beef Production- Entrepreneurship
Beef Production- Placement
Dairy Production- Entrepreneurship
Dairy Production- Placement
Diversified Agriculture Production*
Diversified Livestock Production
Emerging Agricultural Technology*
Equine Science- Entrepreneurship
Equine Science- Placement
Goat Production
Poultry Production
Sheep Production
Small Animal Production
Specialty Animal Production
Swine Production-
 Entrepreneurship
Swine Production- Placement
Vegetable Production
Veterinary Science
Wildlife Production & Management

*** Must be directly related to animal science**

SAE Categories

1) Entrepreneurship: Own and operate an agricultural business (e.g. a lawn care service, a pay-to-fish operation, holiday poinsettia production and sales).
2) Placement: Get a job or internship on a farm or ranch, at an agriculture-based business, or in a school or factory laboratory.
3) Research and Experimentation: Plan and conduct a scientific experiment. (e.g. Determine whether the phases of the moon affect plant growth, or test and determine the efficacy of different welding methods.)
4) Exploratory: Explore careers in agriculture by attending an agriculture career fair, or creating a report or documentary on the work of a veterinarian.

State Degree Requirements

- 1) Receive a Chapter FFA Degree
- 2) Been an active FFA member for at least two years
- 3) Completed at least two years of systematic school instruction in agriculture education
- 4) Have earned and invested at least \$2,000, or have worked 600 hours, outside of class time, on SAE*
- 5) Demonstrated leadership ability by performing 10 parliamentary procedures, giving a six-minute speech on a topic related to agriculture or FFA, and serving as an FFA officer, committee chairperson, or committee member
- 6) Have a satisfactory academic record, certified by the agriculture education teacher and school principal
- 7) Participated in the planning and implementation of the Program of Activities
- 8) Participated in at least eight different FFA activities above the chapter level.
- 9) Complete at least 25 hours of community service in a minimum of two different activities

FFA Leadership CDE/Events above the Chapter Level

CDE's:

Agricultural Communications
Agricultural Issues Forum
Agricultural Sales
Job Interview
Prepared Public Speaking
Extemporaneous Public Speaking
Parliamentary Procedure

Events:

District Officer Conference
Leader Lab/Stand & Deliver
State Conference for
 Chapter Leaders
Washington Leadership Conference

FFA Technical CDE's above the Chapter Level

Dairy Cattle Evaluation & Management
Horse Evaluation
Livestock Evaluation
Milk Quality & Products
Meats Evaluation & Technology
Poultry Evaluation
Veterinary Science